



Land	Patentnummer	Anmelder	ANSPRUCH
US	2005084217	Super Film Sanayi Ve Ticaret A.S.	1- a single (C) or multilayer film (A/B/C/D/E), having improved barrier and grease impermeability, dead fold properties and also taking the various geometric shapes by packing machines, and characterized by comprising a base layer (C), an outer layer (A), an inner layer (B), and a second inner layer (D) consisting essentially of polypropylene polymer and a <u>hydrocarbon resin</u> , and a second outer layer (E) consisting of polypropylene polymer and an antiblocking agent;
US	5543223	Grace	1. A thermoplastic multi-layer film comprising: (a) a core layer comprising a blend of propylene polymer or copolymer, and a <u>hydrocarbon resin</u> ; and (b) two outer layers comprising a polymeric material selected from the group consisting of: i) ethylene alpha olefin copolymer, ii) polybutene, and iii) blends thereof.
US	6579821	Cryovac	1. A thermoplastic multi-layer film comprising: a) a core layer comprising an oxygen barrier material; b) two intermediate layers, on opposite surfaces of the core layer, comprising a polymeric adhesive; c) two outer layers comprising a blend of propylene polymer or copolymer, and a <u>hydrocarbon resin</u> , wherein the <u>hydrocarbon resin</u> comprises a thermoplastic resin of low molecular weight made from relatively impure monomers that are derived from coal-tar fractions or petroleum distillates; and d) a polymeric sealant layer adhered to at least one of the outer layers; wherein the film is heat shrinkable.
US	5447792	WOLFF	1. A biaxially oriented, heat-sealable polypropylene film combining an improved water vapor barrier effect with a considerably reduced coefficient of friction for packaging purposes, which is free from polydimethyl siloxane and has the following structure: A B C B A where a) C is the core layer consisting of polypropylene and a <u>hydrocarbon resin</u> , which has a molecular weight of up to about 2000 g/mol and a softening point above 130.degree. C., and 0.05 to 0.5% by weight erucic acid amide, b) the B's are two jacket layers of highly isotactic polypropylene (isotacticity >94%) free from <u>hydrocarbon resin</u> , the ratio between the thickness of the jacket layer and the thickness of the base layer being between 0.01 and 0.1, c) the A's are two surface layers of a heat-sealable polyolefin copolymer or terpolymer, these surface layers containing at least one antiblocking agent, an antistatic agent and, as lubricant, 0.05 to 0.5% by weight erucic acid amide.
US	5441806	WOLFF	1. An oriented, more particularly biaxially oriented, sealable polypropylene film combining improved water vapor barrier properties with considerably reduced global migration for packaging purposes, having the following structure: A B C B A where a) C is a base layer of polypropylene and a <u>hydrocarbon resin</u> which has a molecular weight of up to about 2000 g/mol and a softening point above 130.degree. C., b) the B's are jacket layers of highly isotactic polypropylene (isotacticity >94%) free from <u>hydrocarbon resin</u> , the ratio between the thickness of a jacket layer and the thickness of the base layer being between 0.01 and 0.1, c) the A's are two surface layers of a heat-sealable polyolefin copolymer or terpolymer, these surface layers containing at least one antiblocking agent, a lubricant and an antistatic agent.
US	6281290	Eastman Chemical Company	1. A process for producing a polypropylene article comprising: providing a masterbatch comprising a mixture of high density polyethylene and at least one member selected from the group consisting of polyolefin and <u>hydrocarbon resin</u> having a ring and ball softening point of at least about 70.degree. C., the masterbatch having about 10-90 wt % of high density polyethylene; mixing said masterbatch with stereoregular polypropylene to form a polypropylene blend having about 0.3 wt % to 4.0 wt % of the high density polyethylene and from 0 wt % to about 5 wt % of <u>hydrocarbon resin</u> ; extruding the blend to form the polypropylene article; and wherein the masterbatch is pelletized prior to mixing with the stereoregular polypropylene to form the polypropylene blend.
US	6087446	Hercules	1. A process for producing a polypropylene article comprising: providing a masterbatch comprising a mixture of high density polyethylene and



			<p>at least one member selected from the group consisting of polyolefin and <u>hydrocarbon resin</u> having a ring and ball softening point of at least about 70.degree. C. the masterbatch having about 10-90 wt % of high density polyethylene;</p> <p>mixing said masterbatch with stereoregular polypropylene to form a polypropylene blend having about 0.3 wt % to 4.0 wt % of the high density polyethylene and from 0 wt % to about 5 wt % of <u>hydrocarbon resin</u>; and extruding the blend to form the polypropylene article.</p>
US	6255395	Eastman Chemical Resin Inc	<p>54. A masterbatch, comprising:</p> <p>at least about 65 wt % of resin; and</p> <p>carrier polymer which is such that a test masterbatch comprising 65 wt % of test resin and 35 wt % of the carrier polymer would solidify, so that the masterbatch would stretch less than 5% when 5 lbf is applied to an extruded test masterbatch strand, within about 10 seconds after exiting a 25 DEG C. water bath in which the extruded test masterbatch strand is submerged for up to 4 seconds, wherein the test resin is a hydrogenated C9 <u>hydrocarbon resin</u> having a R&B softening point of 140 DEG C., and wherein the extruded test masterbatch strand is extruded at a rate of 1.0 to 1.2 kg/hr/strand while drawing the strand at a nominal rate of 17 cm/s using a pelletizer, has a 0.05 to 0.06 inch diameter, and enters the water bath at a temperature of 200.+/-10 DEG C.</p>
US	20040170854	ExxonMobil	<p>1. A film containing a layer comprising:</p> <p>(a) about 2-50 wt % of a polypropylene selected from:</p> <p>(i) polypropylene having a melting point greater than about 155[deg.] C.;</p> <p>(ii) polypropylene having a polydispersity greater than about 4;</p> <p>(iii) polypropylene having greater than about 96% heptane insolubles;</p> <p>(iv) polypropylene meeting two or more (i)-(iii); and</p> <p>(v) combinations of two or more of (i)-(iv).</p> <p>(b) about 2-50 wt % of a <u>hydrocarbon resin</u>;</p> <p>(c) less than about 98 wt % of a polypropylene having a melting point below 160[deg.] C.; and</p> <p>(d) optionally, about 0.05-40 wt % of one or more additives.</p> <p>2. A masterbatch for use in making a film comprising about 10-90 wt % <u>hydrocarbon resin</u> and about 10-90 wt % polypropylene selected from:</p> <p>(a) polypropylene having a melting point greater than about 155[deg.] C.;</p> <p>(b) polypropylene having a polydispersity greater than about 4;</p> <p>(c) polypropylene having greater than about 96% heptane insolubles;</p> <p>(d) polypropylene meeting two or more (a)-(c); and</p> <p>(e) combinations of two or more of (a)-(d).</p> <p>3. A process for the production of oriented polypropylene films comprising blending a polypropylene having a melting point greater than about 155[deg.] C. and a <u>hydrocarbon resin</u> to form a masterbatch containing from 10 to 90 wt % of the resin and subsequently blending the masterbatch with additional polypropylene and extruding the resultant blend to form a film, wherein the polypropylene in the masterbatch is selected from:</p> <p>(a) polypropylene having a melting point greater than about 155[deg.] C.;</p> <p>(b) polypropylene having a polydispersity greater than about 4;</p> <p>(c) polypropylene having greater than about 96% heptane insolubles;</p> <p>(d) polypropylene meeting two or more (a)-(c); and</p> <p>(e) combinations of two or more of (a)-(d).</p>
US	20030211296	ExxonMobil	<p>1. A multi-layer polymeric film comprising:</p> <p>(a) a first skin layer having a first side and a second side;</p> <p>(b) at least one core layer comprising polypropylene, a polymeric modifier, a <u>hydrocarbon resin</u>, and appearance additive, wherein the core layer has a first side and a second side and the first side of the core layer is adjacent to the second side of the first skin layer; and</p> <p>(c) a second skin layer having a first side and a second side wherein the first side of the second skin layer is adjacent to the second side of the core layer.</p> <p>9. A multi-layer polymeric film comprising:</p> <p>(a) a first skin layer having a first side and a second side;</p> <p>(b) at least one core layer comprising polypropylene, a polymeric modifier, a <u>hydrocarbon resin</u>, wherein the core layer has a first side and a second side and the first side of the core layer is adjacent to the second side of the first skin layer; and</p>



			<p>(c) a second skin layer having a first side and a second side wherein the first side of the second skin layer is adjacent to the second side of the core layer.</p> <p>(d) a coating layer applied on at least one outermost surface of the film.</p> <p>15. An multilayer, polymeric film comprising:</p> <p>(a) a core layer comprising isotactic polypropylene, a polymeric modifier, and a <u>hydrocarbon resin</u>; wherein the core layer comprises an interior of the film;</p> <p>(b) a first transition layer exterior to the core layer and on one side of the core layer, wherein the first transition layer is selected from the group consisting of isotactic polypropylene, EP random copolymer, PB copolymer, EPB terpolymer, <u>hydrocarbon resins</u>, and mixtures thereof;</p> <p>(c) a first skin layer exterior to both the core layer and the first transition layer and on the same side of the core layer as the first transition layer, the first skin layer comprising a material selected from the group consisting of isotactic polypropylene, EPB terpolymer, EP copolymer, PB copolymer, metallocene catalyzed polyethylene, HDPE, LLDPE, LDPE, and mixtures thereof; and</p> <p>(d) a second skin layer exterior to the core layer and on a side of the core layer opposite the first transition layer and the first skin layer, wherein the second skin layer comprises a material selected from the group consisting of isotactic polypropylene, EPB terpolymer, EP copolymer, PB copolymer, metallocene catalyzed polyethylene, HDPE, LLDPE, LDPE, and mixtures thereof.</p>
EP	1453893	Super Film Sanayi Ve Ticaret A.S.	<p>1- a single (C) or multilayer film (A/B/C/D/E), having improved barrier and grease impermeability, dead fold properties and also laking the various geometric shapes by packing machines, and characterized by comprising a base layer (C), an outer layer (A), an inner layer (B), and a second inner layer (D) consisting essentially of polypropylene polymer and a <u>hydrocarbon resin</u>, and a second outer layer (E) consisting of polypropylene polymer and an antiblocking agent:</p>
US	2007218308	Exxon	<p>1-41, (canceled)</p> <p>41. A surface-treated article comprising at least one layer comprising about 20 wt % or less of a resin modifier comprising a tackifier selected from the group consisting of aliphatic <u>hydrocarbon resins</u>, hydrogenated aliphatic <u>hydrocarbon resins</u>, aliphatic/aromatic <u>hydrocarbon resins</u>, hydrogenated aliphatic aromatic <u>hydrocarbon resins</u>, cycloaliphatic <u>hydrocarbon resins</u>, hydrogenated cycloaliphatic resins, cycloaliphatic/aromatic <u>hydrocarbon resins</u>, hydrogenated cycloaliphatic/aromatic <u>hydrocarbon resins</u>, hydrogenated aromatic <u>hydrocarbon resins</u>, polyterpene resins, terpene-phenol resins, rosins and mixtures of two or more thereof, wherein the tackifier has a molecular weight (Mw) of about 10,000 or less and wherein the resin modifier comprises about 20 wt % or less unsaturated acid or anhydride or derivative thereof.</p>
US	6139930	Comer	<p>1. A transparent multilayer polyolefin film comprised of an isotactic polypropylene core having, on at least one of its surfaces, a barrier coating receiving layer comprised of:</p> <p>a) polypropylene containing up to about 100% by weight based on the weight of the polypropylene of a copolymer of ethylene and propylene or an α-olefin; and</p> <p>b) up to about 30% by weight, based on the weight of a) of a <u>hydrocarbon resin</u>, said barrier coating receiving layer having a thickness about 1.25 to 43.5% the thickness of the core layer.</p>
US	6441807	WOLFF	<p>1. A biaxially oriented, sealable polypropylene film having an improved water vapor barrier effect, having the following structure ABCBA where</p> <p>a) C is the base layer of highly isotactic polypropylene with an isotacticity of >94% and a <u>hydrocarbon resin</u> which has a molecular weight of up to about 2000 g/mol and a softening point above 130.degree. C.,</p> <p>b) the B's are two jacket layers of highly isotactic polypropylene (isotacticity >94%) free from <u>hydrocarbon resin</u>, the ratio between the thickness of the jacket layer and the thickness of the base layer being between 0.01 and 0.1,</p> <p>c) the A's are two surface layers of a heat-sealable polyolefin homopolymer, copolymer or terpolymer, these surface layers containing at least one antiblocking agent, a lubricant and an antistatic agent.</p>